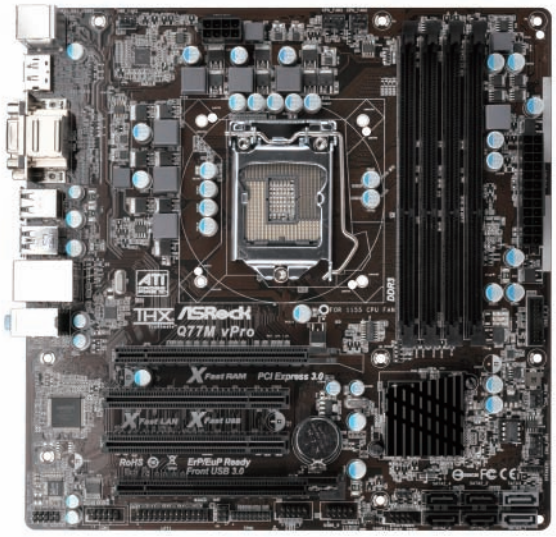
Q77M vPro

Intel® Q77 Chipset

ASRock
www.asrock.com



Intel® Smart Connect Technology

Intel® Rapid Start Technology

Internet Flash

ASRock OMG

Intel GLAN

System Browser

Intel Smart Response

Product Brief

- 100% All Solid Capacitor Design
- Supports DDR3 1600/1333/1066 non-ECC, un-buffered memory, Max. capacity of system memory: 32GB
- 1 x PCIe 3.0 x16 Slot, 1 x PCIe 2.0 x16 Slot
- Supports AMD Quad CrossFireX and CrossFireX
- Supports Intel® HD Graphics with Built-in Visuals
- Multi-VGA Output options: D-Sub, DVI-D and DisplayPort
- Intel PCIE Gigabit LAN
- 5.1 CH HD Audio (Realtek ALC662 Audio Codec), Supports THX TruStudio™
- Supports ASRock XFast RAM, XFast LAN, XFast USB, OMG, Internet Flash, UEFI System Browser
- Supports Intel vPro Technology, Intel Smart Response Technology, Intel Small Business Advantage, Intel Smart Connect Technology, Intel Rapid Start Technology
- Free Bundle : CyberLink MediaEspresso 6.5 Trial, ASRock MAGIX Multimedia Suite

Detail Specification

Platform	- Micro ATX Form Factor: 9.6-in x 9.6-in, 24.4 cm x 24.4 cm - All Solid Capacitor design
CPU	- Supports 3rd and 2nd Generation Intel® Core™ i7 / i5 / i3 in LGA1155 Package - 4 + 2 Power Phase Design - Supports Intel® Turbo Boost 2.0 Technology - Supports Intel® K-Series unlocked CPU - Supports Hyper-Threading Technology
Chipset	- Intel® Q77 - Supports Intel® vPro™ Technology - Supports Intel® Active Management Technology 8.0 - Supports Intel® Small Business Advantage - Supports Intel® Rapid Start Technology and Smart Connect Technology * Intel® Small Business Advantage, Intel® vPro™ Technology and Intel® Active Management Technology 8.0 can be supported only with Intel® Core™ vPro™ processor family
Memory	- Dual Channel DDR3 memory technology - 4 x DDR3 DIMM slots - Supports DDR3 1600/1333/1066 non-ECC, un-buffered memory (DDR3 1600 with Intel® Ivy Bridge CPU, DDR3 1333 with Intel® Sandy Bridge CPU) - Max. capacity of system memory: 32GB - Supports Intel® Extreme Memory Profile (XMP) 1.3 / 1.2
Expansion Slot	- 1 x PCI Express 3.0 x16 slot (PCIE1: x16 mode) * PCIE 3.0 is only supported with Intel® Ivy Bridge CPU. With Intel® Sandy Bridge CPU, it only supports PCIE 2.0. - 1 x PCI Express 2.0 x16 slot (PCIE2: x4 mode) - 2 x PCI slots - Supports AMD Quad CrossFireX™ and CrossFireX™
Graphics	* Intel® HD Graphics Built-in Visuals and the VGA outputs can be supported only with processors which are GPU integrated. - Supports Intel® HD Graphics Built-in Visuals : Intel® Quick Sync Video 2.0, Intel® InTru™ 3D, Intel® Clear Video HD Technology, Intel® Insider™, Intel® HD Graphics 2500/4000 - Pixel Shader 5.0, DirectX 11 with Intel® Ivy Bridge CPU. Pixel Shader 4.1, DirectX 10.1 with Intel® Sandy Bridge CPU. - Max. shared memory 1760MB - Three VGA Output options: D-Sub, DVI-D and DisplayPort - Supports DVI with max. resolution up to 1920x1200 @ 60Hz - Supports D-Sub with max. resolution up to 2048x1536 @ 75Hz - Supports DisplayPort with max. resolution up to 2560x1600 @ 60Hz - Supports HDCP function with DVI and DisplayPort ports - Supports Full HD 1080p Blu-ray (BD) / HD-DVD playback with DVI and DisplayPort ports
Audio	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec) - Supports THX TruStudio™
LAN	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Intel® 82579LM - Supports Wake-On-LAN - Supports Energy Efficient Ethernet 802.3az - Supports PXE
Rear Panel I/O	I/O Panel - 1 x PS/2 Keyboard Port - 1 x D-Sub Port - 1 x DVI-D Port - 1 x DisplayPort - 6 x Ready-to-Use USB 2.0 Ports - 2 x Ready-to-Use USB 3.0 Ports - 1 x RJ-45 LAN Ports with LED (ACT/LINK LED and SPEED LED) - HD Audio Jack: Line in / Front Speaker / Microphone
SATA3	- 2 x SATA3 6.0 Gb/s connectors, support RAID (RAID 0, RAID 1, RAID 5, RAID 10, Intel Rapid Storage and Intel Smart Response Technology), NCQ, AHCI and Hot Plug functions
USB 3.0	- 2 x Rear USB 3.0 ports, support USB 1.0/2.0/3.0 up to 5Gb/s - 1 x Front USB 3.0 header (supports 2 USB 3.0 ports), supports USB 1.0/2.0/3.0 up to 5Gb/s
Connector	- 4 x SATA2 3.0 Gb/s connectors, support RAID (RAID 0, RAID 1, RAID 5, RAID 10, Intel Rapid Storage and Intel Smart Response Technology), NCQ, AHCI and Hot Plug functions - 2 x SATA3 6.0 Gb/s connectors - 1 x IR header - 1 x CIR header - 1 x Print port header - 1 x COM port header - 1 x Power LED header - 1 x TPM header - CPU/Chassis/Power FAN connector - 24 pin ATX power connector - 8 pin 12V power connector - Front panel audio connector - 2 x USB 2.0 headers (support 4 USB 2.0 ports) - 1 x USB 3.0 header (supports 2 USB 3.0 ports)
BIOS Feature	- 64Mb AMI UEFI Legal BIOS with GUI support - Supports "Plug and Play" - ACPI 1.1 Compliance Wake Up Events - Supports jumperfree - SMBIOS 2.3.1 Support - CPU Core, IGPU, DRAM, 1.8V PLL, VTT, VCCSA Voltage Multi-adjustment
Support CD	- Drivers, Utilities, AntiVirus Software (Trial Version), CyberLink MediaEspresso 6.5 Trial, ASRock MAGIX Multimedia Suite - OEM

Unique Feature	- ASRock Extreme Tuning Utility (AXTU)
	- ASRock Instant Boot
	- ASRock Instant Flash
	- ASRock APP Charger
	- ASRock SmartView
	- ASRock XFast USB
	- ASRock XFast LAN
	- ASRock XFast RAM
	- ASRock Crashless BIOS
	- ASRock OMG (Online Management Guard)
	- ASRock Internet Flash
	- Hybrid Booster:
	  - ASRock U-COP
	  - Boot Failure Guard (B.F.G.)
	- Combo Cooler Option (C.C.O.)
	- Good Night LED

Hardware Monitor	- CPU Temperature Sensing - Chassis Temperature Sensing - CPU/Chassis/Power Fan Tachometer - CPU Quiet Fan (Allow Chassis Fan Speed Auto-Adjust by CPU Temperature) - CPU/Chassis Fan Multi-Speed Control - Voltage Monitoring: +12V, +5V, +3.3V, CPU Vcore
OS	- Microsoft® Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit compliant
Certifications	- FCC, CE, WHQL - ErP/EuP Ready (ErP/EuP ready power supply is required)
Accessories	- Quick Installation Guide, Support CD, I/O Shield - 2 x SATA Data Cables (Optional)

The specification is subject to change without notice. The brand and product names are trademarks of their respective companies. Any configuration other than original product specification is not guaranteed.

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ASRock
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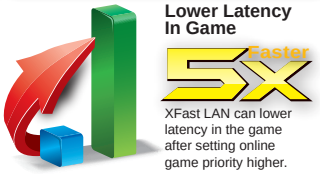
XFast RAM
Fully Optimize Memory Usage

XFast LAN
Faster Internet Access

XFast USB
Boosts up your USB speed

5X Faster for Photoshop Execution

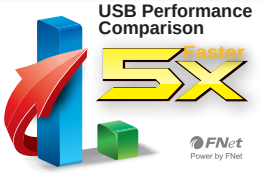
XFast RAM will create a virtual disk from the system memory to boost the performance. For Photoshop, it can even perform 5X faster than before.



Lower Latency In Game

XFast LAN can lower latency in the game after setting online game priority higher.

Time latency in World of Warcraft: Cataclysm
*Lower is better
ASRock Motherboard with XFast LAN
Other Motherboard without XFast LAN



USB Performance Comparison

ATTO Disk Benchmark 4K Read
ASRock Motherboard with XFast USB
Other Motherboard without XFast USB

- The performance boost percentage may vary with a different configuration.

Intel® vPro™ Technology

Intel® vPro™ Technology is a set of IT capabilities, including manageability, security and power management, all embedded into the hardware of PCs with Intel® Core™ vPro™ processors. The capabilities are built into the hardware, so they are available virtually anytime, even if the OS is inoperable, PC's power is off, or the hard drive has failed.

1 *Intel® Active Management Technology (AMT) 8.0*

Using built-in platform capabilities, popular third-party management and security applications, Intel® Active Management Technology allows IT to better discover, heal, and protect their networked computing assets.

2 *Intel® Virtualization Technology (VT)*

Intel® VT Technology provides greater flexibility and maximum system utilization by consolidating multiple environments onto a single server, workstation, or PC.

3 *Intel® Trusted Execution Technology (TXT)*

Intel® TXT Technology enhances platform security by protecting PCs against software-based attacks and protecting the confidentiality and integrity of data stored or created on the system.

Intel® Small Business Advantage

Intel® SBA with Next Generation Intel® Core is a unique, out-of-the-box solution that delivers:

- An easy-to-use interface
- Relevant security and productivity applications
- Free and easy customization

SECURITY

Software Monitor

Software Monitor helps keep critical security software running by monitoring it at the hardware level and alerting the business if there has been an attack.

Data Backup & Restore

Data Backup & Restore provides reliable after-hours backup of critical data using the local maintenance timer to remotely power on the PC.

USB Blocker

USB Blocker lets businesses control access to their infrastructure, preventing unauthorized USB devices or file imports or exports on company PCs.

PRODUCTIVITY

PC Health Center

PC Health Center can schedule and perform PC maintenance tasks after hours so as not to interrupt employees' work. It works even if the computer is powered down, as long as it is plugged in.

Energy Saver

With Energy Saver, businesses can save energy by scheduling PCs to power-down at the end of the day and turn on before the work day begins—ready for employees as they arrive in the morning.

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Intel Smart Response

For users who are tempted to connect the SSD and HDD on ASRock motherboard, Intel Smart Response Technology can make the SSD become the "Cache of the HDD" to boost up the HDD access speed.

Intel Smart Connect Technology

Intel Smart Connect Technology keeps content continuously updated while the PC is asleep! It will periodically wake up the PC while in a sleep state and check updates for things like email, Twitter, Facebook, etc.

Intel Rapid Start Technology

Quickly return to where you left off with a PC that goes from deep-sleep to full awake in a flash.

Intel Gigabit LAN

Intel LAN provides the best throughput performance, lower CPU utilization, enhanced stability and is able to deliver ultimate network experience to users!

ASRock OMG (Online Management Guard)

Fast, Easy and Free – ASRock OMG technology allows you to establish an internet curfew or restrict internet access at specified times. Administrators are able to schedule the starting and ending hours of internet access granted to other users.

Internet Flash

Internet Flash searches for available UEFI firmware updates from ASRock servers. System can auto-detect the latest UEFI from our servers and flash them within UEFI setup without entering Windows ® OS.

Intel HD Graphics

Intel® HD Graphics, simplifies your designs by eliminating additional discrete graphics hardware, while integrating stunning visuals and performance for immersive gaming.

Next-Gen PCIe 3.0

- Higher bit rate - 8.0GT/s
- Higher bandwidth per lane - 1GB/s
- Higher efficiency - 98.5% encoding efficiency
- 100% backward compatible with previous PCI-E 2.0 / 1.0 standard

Note: Supported with 3rd Gen Intel Core Processor

UEFI System Browser

UEFI system browser is a useful tool included in graphical UEFI. It can detect the devices and configurations that users are currently using in their PC.

THX TruStudio

Delivering the fullest audio experience for games, music and movies.

Cyberlink MediaEspresso 6.5 Trial

The fastest video media conversation software

MAGIX Multimedia Suite

The ultimate solutions to enhance your media experience. From music management, music creation, video editing to photo management. Simply do more with your media than you ever thought possible.